

Meningitis: inflammation of meninges

◦ **Patho:** pathogens infect meningeal layers

Acute bacterial: more **common**

→ bacteria meningococci (Neisseria meningitidis)
◦ found in school age children, young adults, immunosuppressed

→ streptococci (Streptococcus pneumoniae)
↳ more serious form but adults usually recover w/ no perm impairment (complications can be serious if not treated)

Aseptic:

→ **viruses:** HSV, mumps, **enteroviruses**
◦ more common in children & older adults (**milder** version)

→ fungi, parasites

◦ **assessment:**

◦ triad: **headache, fever, nuchal rigidity**

* **nuchal rigidity:** pain & stiff neck

* photophobia

◦ n/v, restlessness, irritability

◦ seizures

◦ opisthotonos (**spasm** of muscle → arching of head/neck)

◦ + **Brudzinkis sign** (**pain** w/ passive neck flexion)

◦ + **Kernigs sign:** resist leg extension when thigh flexed on abdomen

◦ **meningococcal:** petechiae that looks like rug burn

◦ **viral:** rash

→ older adults may not have typical SIS: change in mental status, slight/no fever, no neck pain/headache

◦ **diagnostics:**

◦ lumbar puncture to diagnose - CSF appears **cloudy**

◦ C & S, blood culture, CBC ↳ **elevated protein**

◦ CT done before LP if:

→ altered mental status or new focal deficit

→ papilledema

→ seizure within past week

→ >60 y/o or immunocompromised

◦ **medical management:**

◦ IV fluids & anti**microbial** therapy

◦ anticonvulsants: seizures

◦ **immunization:** meningococcal meningitis (**menomune**)

◦ **nursing management:**

◦ manage symptoms to prevent increase in ICP

◦ control spread of infection

◦ prevent direct exposure to oral secretions

↳ **droplet precautions!**

Encephalitis: swelling of brain & pathologic changes in both white & grey matter & surrounding meninges

◦ **Patho:** pathogens infect **brain parenchyma**

→ **vector-borne** viral infections

◦ St. Louis

◦ Western/Eastern equine

◦ West Nile

→ rubella (measles)

→ neurotoxic effects associated w/ childhood vaccination

→ HSV-1

◦ **assessment:**

◦ **sudden** fever, chills, malaise

◦ severe headache, stiff neck

◦ tremors, seizures, visual disturbances

◦ spastic or flaccid paralysis

◦ delirium, coma, incontinence

◦ assess for **insect bite** - question recent activity - **camping**, exposure to toxins

◦ **diagnostics:**

◦ lumbar puncture:

→ CSF pressure **elevated** BUT fluid **clear!**
however could show rise in **IgM** antibodies

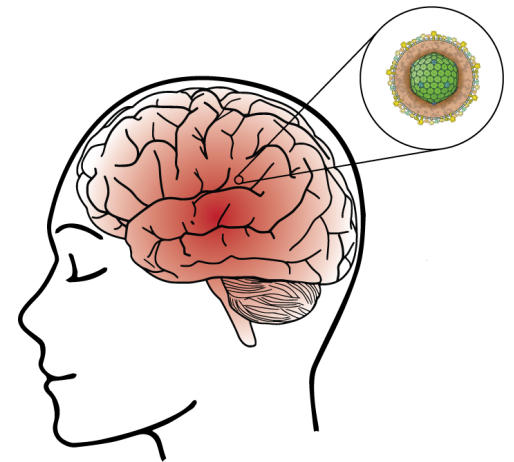
◦ MRI & CT: before lumbar puncture

◦ **medical management:** **SUPPORTIVE**

◦ symptoms managed w/ antipyretics, anticonvulsants, anti-inflammatory, & analgesics

◦ **nursing management:**

◦ LOC, I&O, bowel function

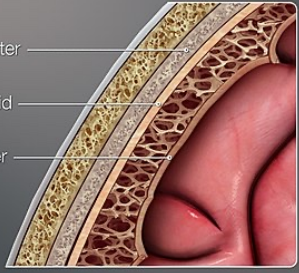


Meninges

Dura Mater

Arachnoid

Pia Mater



MENINGITIS

